

WHAT IS CLAIMED IS:

1. An image-recording element comprising a support and an image-receiving layer, wherein said imaging receiving layer comprises anionic colloidal silica particles, hydrophilic polymeric binder, and fluorosurfactant, wherein said binder is present in an amount of between 2% and 15% by weight of said image-receiving layer, said image-recording element has a 60-degree gloss of greater than 25, and a dry time of less than 1 minute.

2. The image-recording element of claim 1 wherein said anionic colloidal silica particles have a median diameter of between 50 and 300 nm.

3. The image-recording element of claim 1 wherein said anionic colloidal silica particles have a median diameter of between 80 and 200 nm.

4. The image-recording element of claim 1 wherein the counterion for said anionic colloidal silica particles comprises potassium.

5. The image-recording element of claim 1 wherein at least 80% of said anionic colloidal silica particles have a diameter of within 35% smaller or larger than the median diameter of said anionic colloidal silica particles.

6. The image-recording element of claim 1 wherein said hydrophilic polymeric binder is poly(vinyl alcohol).

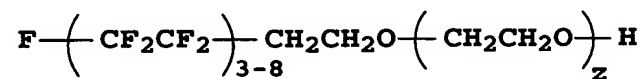
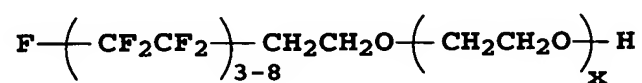
7. The image-recording element of claim 1 wherein said hydrophilic polymeric binder is poly(vinyl alcohol) having a percent hydrolysis of 77 to 90.

8. The image-recording element of claim 1 wherein said hydrophilic polymeric binder is poly(vinyl alcohol) having a viscosity for a 4% aqueous solution at 20° C of 2.5 to 12 cps.

9. The image-recording element of claim 1 wherein said hydrophilic polymeric binder is gelatin.

10. The image-recording element of claim 1 wherein said hydrophilic polymeric binder is poly(vinyl alcohol-co-ethyleneoxide).

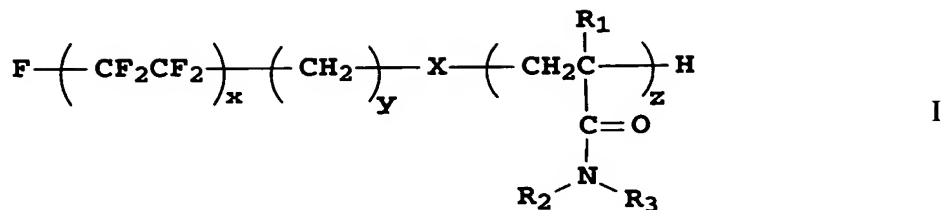
11. The image-recording element of claim 1 wherein said fluorosurfactant is selected from at least one member of the group consisting of:



wherein $x < y < z$ and x , y , and z are between 0 and 25 and wherein the distribution of the perfluoroethylene units in the perfluorinated portion of the three surfactants is different.

12. The image-recording element of claim 1 wherein said fluorosurfactant comprises polymeric fluorosurfactants.

13. The image-recording element of claim 1 wherein said fluorosurfactant comprises an oligomeric acrylamide of the general formula I:



wherein

x is 2 to 8;

y is 2 to 6;

z is 5 to 60;

X is S or $-\text{O}-\overset{\overset{\text{O}}{\parallel}}{\text{C}}-\left(\text{CH}_2\right)_p-\text{S}-$, where p is 1 to 3;

R₁ is H or C₁-C₃ alkyl;

R₂ and R₃ can be any of the following combinations:

R₂ and R₃ each independently represent an unsubstituted or substituted alkyl or aryl group,

R₂ is H and R₃ is an isopropyl group, or

R₂ and R₃, together with the adjacent N atom, form a heterocyclic ring.

14. The image-recording element of claim 13 wherein

x is 3 or 4;

y is 2 or 3;

z is 5 to 15;

X is S;

R₁ is H; and

R₂ and R₃ can be any of the following combinations:

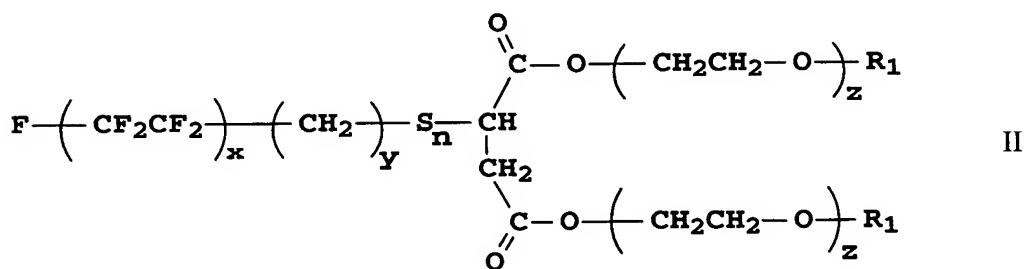
R₂ and R₃ each independently represent a methyl or ethyl group, or

R₂ is H and R₃ is an isopropyl group.

15. The image-recording element of claim 13 wherein

x is 3 or 4;
y is 2;
z is 5 to 10;
X is S;
R₁ is H; and
R₂ and R₃ are methyl groups.

16. The image-recording element of claim 1 wherein said fluorosurfactant comprises an ethylene oxide oligomer of general formula II:



wherein

x is 2 to 8;
y is 1 to 6;
z is 4 to 30;
n is 0 or 1;
R₁ is H, a methyl or an ethyl group.

17. The image-recording element of claim 16 wherein

x is 3 or 4;
y is 2 or 3;
z is 10 to 18;
n is 1; and
R₁ is a methyl group.

18. The image-recording element of claim 16 wherein

y is 2;

n is 1; and



x is 2 to 8;

z is 5 to 60;

R_2 and R_3 can be any of the following combinations:

R₂ is H and R₃ is an isopropyl group, or

or 4;

z is 16 to 50;

R₁ is H or methyl; and

R₂ and R₃ can be either of the following combinations:

R₂ and R₃ each independently represent a methyl or ethyl group, or
R₂ is H and R₃ is an isopropyl group.

21. The image-recording element of claim 19 wherein

x is 3;

y is 2;

z is 25;

R₁ is H; and

R₂ and R₃ represent a methyl group.

22. The image-recording element of claim 1 wherein said
fluorosurfactant comprises between 0.05% and 3% of said image-receiving layer
by weight.

23. The image-recording element of claim 1 wherein said image-
receiving layer further comprises a latex polymer having a glass transition
temperature of less than 30° C.

24. The image-recording element of claim 23 wherein said latex
polymer is present in an amount of between 4% and 15% by weight of said image-
receiving layer.

25. The image-recording element of claim 1 wherein said image-
receiving layer further comprises a hardener.

26. The image-recording element of claim 1 wherein said image-
receiving layer comprises borax; boric acid or its salts; 1,4-dioxane-2,3-diol;
glyoxal; or bis(vinylsulfonyl)methane as a hardener.

27. The image-recording element of claim 1 wherein said support is nonporous and said image-receiving layer has a total coverage 35 and 65 g/m².

28. The image-recording element of claim 1 wherein said support is porous and said image-receiving layer has a total coverage of between 4 and 30 g/m².

29. The image-recording element of claim 1 wherein said support is porous and said image-receiving layer has a total coverage of between 6 and 20 g/m².

30. The image-recording element of claim 1 wherein an ink-absorbing layer is present between said support and said image-receiving layer.

31. The image-recording element of claim 30 wherein said ink-absorbing layer is porous, and said image-receiving layer has a total coverage of between 4 and 30 g/m².

32. The image-recording element of claim 30 wherein said ink-absorbing layer is porous, and said image-receiving layer has a total coverage of between 6 and 20 g/m².

33. The image-recording element of claim 1 wherein the surface pH of said image-receiving layer moistened with water is between 8 and 10.

34. The image-recording element of claim 1 wherein said image-recording element comprises an inkjet image-recording element.